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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,787	06/19/2003	David Cappers Steere	50037.185US01	5952

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EXAMINER
ANYA, CHARLES E

ART UNIT	PAPER NUMBER
2194	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Applicant(s)
Office Action Summary		10/600,787	STEERE ET AL.
		Examiner	Art Unit
		Charles E. Anya	2194

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *6/19/03*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-64* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-64* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *10/18/04; 4/14/05*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-64 are pending in this application.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   **Claims 28–39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claims 28-39 is data, but not data structure per se and are descriptive materials directed to nonfunctional descriptive material. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material". "Functional descriptive material" consists of data structures and computer programs, which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works, and a compilation or **mere arrangement of data.**

Claims 28-39 does not exhibit any functional interrelationship and therefore does not constitute a statutory process, machine or manufacture.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   **Claims 1-5,7-10,13-27,40,41,43-49,51 and 56-64 are rejected under 35**

U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,721,740 B1 to Skinner et al.

6.   As to claim 1, Skinner teaches a computer-implemented method for a client to

interact with a server (figures 2/3/5/8/9), the computer-implemented method comprising:

creating a cached object from an original object (Col. 13 Ln. 64 – 67, Col. 15 Ln. 20 –

27), the original object being managed by the server ("...data object...application

server..." Col. 11 Ln. 18 – 21); and establishing a notification bond (interest object) with

the server ("...registering an interest object..." Col. 2 Ln. 54 – 65, Observable 400 Col. 9

Ln. 20 – 26, figure 6 Col. 12 Ln. 56 – 67, Col. 13 Ln. 1 – 16), the notification bond

enabling the client to obtain a notification from the server in response to an object

related event associated with the original object ("...interest object..." Col. 3 L. 1 – 11,

Col. 8 Ln. 23 – 43, Ln. 52 – 67).

7.   As to claim 2, Skinner teaches the computer-implemented method of claim 1,
wherein the object related event includes when the original object has been modified
("...modification..." Col. 2 Ln. 54 – 65, "...data object is changed..." Col. 11 Ln. 18 –
22).

8.   As to claim 3, Skinner teaches the computer-implemented method of claim 1,
wherein establishing the notification bond is performed in response to creating the
cached object (Col. 12 Ln. 56 – 62).

9.   As to claim 4, Chan teaches the computer-implemented method of claim 1,
further comprising: obtaining a notification from the server; and updating the cached
object using the notification ("...modification..." Col. 2 Ln. 54 – 65, "Update
notification..." Col. 3 Ln. 1 – 11, Col. 10 Ln. 25 – 47, Col. 11 Ln. 5 – 30).

10.   As to claim 5, Skinner teaches the computer-implemented method of claim 1,
wherein obtaining the notification includes retrieving a notification log containing the
notification (LiveInterest 401 Col. 9 Ln. 31 – 36).

11.   As to claim 7, Skinner teaches the computer-implemented method of claim 1,
further comprising maintaining states associated with the notification bond

("...registry..." Col. 3 Ln. 1 – 24, Col. 10 Ln. 25 – 47, Col. 8 Ln. 23 – 43, "...server interest registry...interest object..." Col. 11 Ln. 5 – 45).

12.   As to claim 8, Skinner teaches the computer-implemented method of claim 7, wherein the states are maintained in a persistent medium ("...registry..." Col. 3 Ln. 1 – 24, Col. 8 Ln. 23 – 43, Col. 10 Ln. 25 – 47, "...server interest registry...interest object..." Col. 11 Ln. 5 – 45).

13.   As to claim 9, Skinner teaches the computer-implemented method of claim 8, wherein the states include a bond number that uniquely identifies the notification bond ("...unique identifier...object ID or serial number..." Col. 8 Ln. 52 – 59).

14.   As to claim 10, Skinner teaches the computer-implemented method of claim 8, wherein the states include a aggregate bond number that is unique to the client ("...set of unique object identifiers..." Col. 8 Ln. 52 – 58).

15.   As to claim 13, Skinner teaches a computer-implemented method for a server to interact with a client, the computer-implemented method comprising: establishing a notification bond (interest object) with the client ("...registering an interest object..." Col. 2 Ln. 54 – 65, Observable 400 Col. 9 Ln. 20 – 26, LiveObjectInterest 403 Col. 9 Ln. 56 – 57, figure 6 Col. 12 Ln. 56 – 67, Col. 13 Ln. 1 – 16), the notification bond enabling the client to obtain a notification from the server in response to an object related event

associated with an object; and enabling the client to cache the object ("...interest object..." Col. 3 L. 1 – 11, Col. 8 Ln. 23 – 43, Ln. 52 – 67, figure 5A/5B Col. 10 Ln. 40 – 47, Col. 11 Ln. 18 – 22).

16.　　As to claim 14, Skinner teaches the computer-implemented method of claim 13, wherein the object related event includes when the object has been modified ("...modification..." Col. 2 Ln. 54 – 65, "...data object is changed..." Col. 11 Ln. 18 – 22).

17.　　As to claim 15, Skinner teaches the computer-implemented method of claim 13, wherein establishing the notification bond is performed in response to a request from the client to cache the object ("...sends a request..." Col. 15 Ln. 20 – 27).

18.　　As to claim 16, Skinner teaches the computer-implemented method of claim 13, further comprising: determining an object related event that was not caused by the client ("...received from...clients ...or...servers..." Col. 17 Ln. 14 – 18); creating a notification in accordance with the notification bond; and providing the notification to the client ("...interest registry is traversed to determine those application components that have registered..." Col. 8 Ln. 23 – 43, "...notification is passed to each interest object registered..." Col. 11 Ln. 1 – 26).

19.   As to claim 17, Skinner teaches the computer-implemented method of claim 13,

further comprising: determining an object related event that was not caused by the client

("...received from...clients ...or...servers..." Col. 17 Ln. 14 – 18); creating a notification

in accordance with the notification bond (Col. 3 Ln. 1 – 11, "...interest registry is

traversed to determine those application components that have registered..." Col. 8 Ln.

23 – 43, "...notification is passed to each interest object registered..." Col. 11 Ln. 1 –

26) and recording the notification in a notification log (LiveCollectedUpdates 402 Col. 9

Ln. 38 – 55, LiveCollectedUpdates Object 512 Col. 12 Ln. 25 – 42).

20.   As to claim 18, Skinner teaches the computer-implemented method of claim 17,

further comprising: establishing a connection with the client; and sending the notification

log to the client (Col. 14 Ln. 1 – 7, Client-Side Communication Management

Components 305A/Server-Side Communication Management Components 305B Col.

16 Ln. 21 – 65).

21.   As to claim 19, Skinner teaches a distributed file system for sharing objects,

comprising: a server configured to manage original objects ("...data object..." Col. 11

Ln. 18 – 21, Application Server 307 Col. 14 Ln. 21 – 31, Col. 15 Ln. 20 – 27), the server

including a bond manager configured to issue notification bonds to clients (figure 6 Col.

12 Ln. 56 – 67, Col. 13 Ln. 1 – 16), each notification bond enabling a client to obtain a

notification from the server in response to an object related event associated with an

original object ("...update management component..." Col. 1 – 11, Col. 8 Ln. 23 – 43,

Col. 10 Ln. 40 – 47, Root Node 500 Col. 10 Ln. 66 – 67, Col. 11 Ln. 1 – 4, Ln. 18 – 24).

22.   As to claim 20, Skinner teaches the distributed file system of claim 19, wherein

the bond manager is configured to provide notifications to the clients in accordance with

the notification bonds. ("...update management component..." Col. 1 – 11, Col. 8 Ln. 23

– 43, Col. 10 Ln. 40 – 47, Root Node 500 Col. 10 Ln. 66 – 67, Col. 11 Ln. 1 – 4, Ln. 18

– 24).

23.   As to claim 21, Skinner teaches the distributed file system of claim 19, wherein

the server further comprises a file system manager configured to manage the original

objects (Application Server 307 Col. 14 Ln. 21 – 31) and wherein the bond manager

comprises a filter component configured to determine object related events by

monitoring communication traffic associated with the file system manager ("...update

notifications are filtered..." Col. 10 Ln. 25 – 35).

24.   As to claim 22, Skinner teaches the distributed file system of claim 19, wherein

the bond manager is configured to maintain a bond table and wherein the bond table

includes states that relate each notification bond with an original object and a client to

whom the notification is to be provided ("...registry..." Col. 3 Ln. 1 – 24, "...interest

registry..." Col. 8 Ln. 23 – 43, Col. 10 Ln. 25 – 47, "...server interest registry..." Col. 11

Ln. 5 – 45).

25.   As to claim 23, Skinner teaches the distributed file system of claim 19, wherein

the bond manager is configured to maintain a notification log and wherein the

notification log includes notifications for the client (LiveCollectedUpdates Object 512

Col. 12 Ln. 25 – 42, Update Management Component 304A Col. 15 Ln. 35 – 49).

26.   As to claim 24, Skinner teaches the distributed file system of claim 19, further

comprising: a client configured to create a cached object associated with an original

object managed by the server (Client-Side Cache Component 303A Col. 15 Ln. 20 –

27), the client including a notification handler configured to maintain a notification bond

associated with the original object in conjunction with the server (Update Management

Component 304A Col. 15 Ln. 35 – 49).

27.   As to claim 25, Skinner teaches the distributed file system of claim 19, wherein

the notification handler is configured to obtain from the server a notification log

associated with the notification bond and to update the cached object in accordance

with the notification log ("...update management components..." Col. 14 Ln. 1 – 7,

Update Management Component 304A Col. 15 Ln. 35 – 49).

28.   As to claim 26, Skinner teaches the distributed file system of claim 25, wherein

the notification log includes notifications associated with a plurality of notification bonds

(LiveCollectedUpdates 402 Col. 9 Ln. 38 – 55, LiveCollectedUpdates Object 512 Col. 12 Ln. 25 – 42).

29.   As to claim 27, Skinner teaches the distributed file system of claim 19, wherein the notification handler is configured to maintain a bond table and wherein the bond table includes states that relate each notification bond with a cached object and a server that manages an original object corresponding to the cached object ("...registry..." Col. 3 Ln. 1 – 24, "...interest registry..." Col. 8 Ln. 23 – 43, Col. 10 Ln. 25 – 47, "...server interest registry..." Col. 11 Ln. 5 – 45).

30.   As to claim 40, Skinner teaches a distributed file system for sharing objects, comprising: means for a client to cache an original object managed by a server (Client 300A/Client 300B); and means for establishing a notification bond (interest object) with the server and the client (figure 6 Col. 12 Ln. 56 – 67, Col. 13 Ln. 1 – 16), the notification bond enabling the client to obtain a notification from the server in response to an object related event associated with the original object ("...registering an interest object..." Col. 2 Ln. 54 – 65, Observable 400 Col. 9 Ln. 20 – 26, LiveObjectInterest 403 Col. 9 Ln. 56 – 57).

31.   As to claim 41, Skinner teaches the distributed file system of claim 40, further comprising: means for obtaining a notification from the server (Col. 8 Ln. 23 – 43, Col. 9 Ln. 56 – 62, "...transmission of an update notification..." Col. 10 Ln. 35 – 39, Col. 11 Ln.

18 – 26, Col. 1 – 5, Col. 14 Ln. 1 – 7); and means for updating the cached object using

the notification (Col. 14 Ln. 1 – 7, Col. 15 Ln. 20 – 27, Col. 16 Ln. 5 – 20).

32.   As to claim 43, Skinner teaches the distributed file system of claim 40, further

comprising: means for determining an object related event ("When modifications..." Col.

2 Ln. 61 – 65, Col. 8 Ln. 33 – 35, "When data object is changed..." Col. 11 Ln. 18 – 21);

means for creating a notification in accordance with the notification bond (Col. 3 Ln. 1 –

11, "...interest registry is traversed to determine those application components that

have registered..." Col. 8 Ln. 23 – 43, "...notification is passed to each interest object

registered..." Col. 11 Ln. 1 – 26); and means for providing the notification to the client

(Col. 15 Ln. 20 – 27).

33.   As to claim 44, Skinner teaches the distributed file system of claim 40, further

comprising: means for determining an object related event ("When modifications..." Col.

2 Ln. 61 – 65, Col. 8 Ln. 33 – 35, "When data object is changed..." Col. 11 Ln. 18 – 21);

means for creating a notification in accordance with the notification bond (Col. 8 Ln. 30

– 32, Col. 9 Ln. 26 – 37); and means for recording the notification in a notification log

(LiveCollectedUpdates 402 Col. 9 Ln. 38 – 55, LiveCollectedUpdates Object 512 Col.

12 Ln. 25 – 42).

34.   As to claim 45, Skinner teaches the distributed file system of claim 40, further

comprising: means for establishing a connection with the client; and means for sending

the client the notification log ("...transmitted..." Col. 14 Ln. 1 – 7, Client-Side

Communication Management Components 305A/Server-Side Communication

Management Components 305B Col. 16 Ln. 21 – 65).

35.   As to claim 46, Skinner teaches the distributed file system of claim 40, further

comprising: means for the client to drop the notification bond ("...deleting observers..."

Col. 9 Ln. 20 – 23).

36.   As to claim 47, Skinner teaches the distributed file system of claim 40, further

comprising: means for the server to drop the notification bond ("...deleting observers..."

Col. 9 Ln. 20 – 23).

37.   As to claim 48, Skinner teaches the distributed file system of claim 40, further

comprising: means for the server to drop all notification bonds associated with the client

("...deleting observers..." Col. 9 Ln. 20 – 23).

38.   As to claim 49, Skinner teaches the distributed file system of claim 48, further

comprising: means for the server to reset clear states associated with the dropped

notification bonds ("...setting of a "changed" flag..." Col. 11 Ln. 31 – 40).

39.   As to claim 51, Skinner teaches a computer-implemented method for

synchronizing cached objects maintained by a client with the corresponding original

objects maintained by a server (figure 3), the computer-implemented method

comprising: persistently maintaining, by the server, server bond states related to the

original objects, the server bond states corresponding to notification bonds associated

with the original objects ("...interest object..." Col. 8 Ln. 23 – 29, "...observer list..." Col.

9 Ln. 20 – 23, Server Interest Registry 501/503 Col. 11 Ln. 5 – 13, figure 6 Col. 12 Ln.

56 – 67, Col. 13 Ln. 1 – 16), each notification bond enabling the client to obtain a

notification from the server when at least one of the original object has been modified

("When a change is made...interest registry is traversed..." Col. 23 – 43); and

persistently maintaining, by the client, client bond states corresponding to the server

bond states ("...same as or similar to..." Col. 11 Ln. 5 – 11).

40.   As to claim 56, Skinner teaches the computer-implemented method of claim 51,

further comprising determining, by the server, to drop a notification bond ("...refined..."

Col. 3 Ln. 12 – 16, "...deleting observers..." Col. 9 Ln. 20 22, Col. 11 Ln. 31 – 40,

"...successive refinement..." Col. 12 Ln. 44 – 55); performing, by the server, an

operation to drop the notification bond ("...refined..." Col. 3 Ln. 12 – 16, "...deleting

observers..." Col. 9 Ln. 20 22, Col. 11 Ln. 31 – 40, "...successive refinement..." Col. 12

Ln. 44 – 55); and providing, by the server, a notification to the client for dropping the

notification bond ("...receive notifications..." Col. 10 Ln. 8 – 10).

41.   As to claim 57, Skinner teaches the computer-implemented method of claim 56,

wherein performing the operation commits the server to dropping the notification bond

("...refined..." Col. 3 Ln. 12 – 16, "...deleting observers..." Col. 9 Ln. 20 22, Col. 11 Ln.

31 – 40, "...successive refinement..." Col. 12 Ln. 44 – 55).

42.   As to claim 58, Skinner teaches the computer-implemented method of claim 57,

wherein performing the operation is completed before providing the notification to the

client ("...receive notifications..." Col. 10 Ln. 8 – 10).

43.   As to claim 59, Skinner teaches the computer-implemented method of claim 51,

further comprising determining, by the server, to drop all notification bonds associated

with the client ("...refined..." Col. 3 Ln. 12 – 16, "...deleting observers..." Col. 9 Ln. 20

22, Col. 11 Ln. 31 – 40, "...successive refinement..." Col. 12 Ln. 44 – 55); performing,

by the server, an operation to drop the notification bonds ("...refined..." Col. 3 Ln. 12 –

16, "...deleting observers..." Col. 9 Ln. 20 22, Col. 11 Ln. 31 – 40, "...successive

refinement..." Col. 12 Ln. 44 – 55); and providing, by the server, a notification to the

client for dropping the notification bonds ("...receive notifications..." Col. 10 Ln. 8 – 10).

44.   As to claim 60, Skinner teaches the computer-implemented method of claim 59,

wherein performing the operation commits the server to dropping the notification bonds

("...refined..." Col. 3 Ln. 12 – 16, "...deleting observers..." Col. 9 Ln. 20 22, Col. 11 Ln.

31 – 40, "...successive refinement..." Col. 12 Ln. 44 – 55).

45.   As to claim 61, Skinner teaches the computer-implemented method of claim 60,

wherein performing the operation is completed before providing the notification to the

client ("...receive notifications..." Col. 10 Ln. 8 – 10).

46.   As to claim 62, Skinner teaches the computer-implemented method of claim 51,

further comprising determining, by the client, to drop a notification bond ("...refined..."

Col. 3 Ln. 12 – 16, "...deleting observers..." Col. 9 Ln. 20 22, Col. 11 Ln. 31 – 40,

"...successive refinement..." Col. 12 Ln. 44 – 55); performing, by the client, an operation

to drop the notification bond ("...refined..." Col. 3 Ln. 12 – 16, "...deleting observers..."

Col. 9 Ln. 20 22, Col. 11 Ln. 31 – 40, "...successive refinement..." Col. 12 Ln. 44 – 55);

and requesting the server to drop the notification bond ("...receive notifications..." Col.

10 Ln. 8 – 10).

47.   As to claim 63, Skinner teaches the computer-implemented method of claim 62,

wherein performing the operation commits the client to dropping the notification bond

("...receive notifications..." Col. 10 Ln. 8 – 10).

48.   As to claim 64, Skinner teaches the computer-implemented method of claim 63,

wherein performing the operation is completed before requesting the server to drop the

notification bond ("...receive notifications..." Col. 10 Ln. 8 – 10).

49.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

50.   Claim 50 is rejected under 35 U.S.C. 102(b) as being anticipated by E.P.O

No. 0926,608 A2 to Chan.

51.   As to claim 50, Chan teaches a computer-implemented method for maintaining

cached objects that correspond to original objects managed by a server ("...local

copy..." Col. 3 LN. 49 – 58), the computer-implemented method comprising:

reestablishing a communication link between the client and the server after a period of

time without a communication link ("...reconnection..." Col. 3 Ln. 49 – 58); obtaining

notifications from the server about changes made to at least one of the original objects

during the period of time ("...receiving..." Col. 3 Ln. 49 – 58); and synchronizing a cache

object corresponding to the at least one original object using the notifications, without

synchronizing all of the cached objects ("...determine...update...comparison..." Col. 3

Ln. 56 – 58, Col. 4 Ln. 1 – 4).

Claim Rejections - 35 USC § 103

52.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

53.   **Claims 6,11,12,42 and 52-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,721,740 B1 to Skinner et al. in view of U.S. Pat. No. 6,161,125 A to Traversat et al.**

54.   As to claim 6, Skinner teaches the computer-implemented method of claim 1, further comprising: requesting a notification log containing a notification; and synchronizing the cache object with the original object using the notification ("...modification..." Col. 2 Ln. 54 – 65, "Update notification..." Col. 3 Ln. 1 – 11, Col. 10 Ln. 25 – 47, Col. 11 Ln. 5 – 30).

Skinner is silent with reference to reconnecting with the server after a disconnected period of time.

Traversat teaches reconnecting with the server after a disconnected period of time ("...reconnection..." figures 9/10 Col. 13 Ln. 4 – 67, Col. 14 Ln. 1 – 11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Skinner with the teaching of Traversat because the teaching of Traversat would improve the system of Skinner by allowing for determination of when and how to efficiently reconnect a client and a server (Traversat Col. 13 Ln. 4 – 53)

55.   As to claim 11, Traversat teaches the computer-implemented method of claim 8,
further comprising reestablishing the states on the client after a restart
("...reconnection..." figures 9/10 Col. 13 Ln. 4 – 67, Col. 14 Ln. 1 – 11).

56.   As to claim 12, Skinner teaches the computer-implemented method of claim 11,
further comprising synchronizing the states on the client and corresponding states on
the server ("...notification..." Col. 10 Ln. 25 – 47, Col. 11 Ln. 18 – 26).

57.   As to claim 42, Skinnner teaches the distributed file system of claim 40, further
comprising: means for requesting a notification log containing a notification
(LiveCollectedUpdates 402 Col. 9 Ln. 38 – 55, Col. 15 Ln. 20 – 27); and means for
synchronizing the cache object using the notification ("Update notifications..." Col. 3 Ln.
7 – 11, Step 707 Col. 13 Ln. 35 – 39, "...updates..." Col. 16 Ln. 5 – 20).

       Traversat teaches means for reconnecting with the server after a disconnected
period of time ("...reconnection..." figures 9/10 Col. 13 Ln. 4 – 67, Col. 14 Ln. 1 – 11).

58.   As to claim 52, Traversat teaches the computer-implemented method of claim
51, further comprising reestablishing the server bond states after a server reboot or
restart ("...reconnection..." figures 9/10 Col. 13 Ln. 4 – 67, Col. 14 Ln. 1 – 11).

59.   As to claim 53, Traversat teaches the computer-implemented method of claim
52, further comprising recovering notifications associated with the notification bonds

after a server reboot or restart ("...reconnection..." figures 9/10 Col. 13 Ln. 4 – 67, Col.

14 Ln. 1 – 11).

60.   As to claim 54, Traversat teaches the computer-implemented method of claim

51, further comprising reestablishing the client bond states after a client reboot or restart

("...reconnection..." figures 9/10 Col. 13 Ln. 4 – 67, Col. 14 Ln. 1 – 11).

61.   As to claim 55, Traversat teaches the computer-implemented method of claim

54, further comprising recovering notifications associated with the notification bonds

after a server reboot or restart ("...reconnection..." figures 9/10 Col. 13 Ln. 4 – 67, Col.

14 Ln. 1 – 11).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Charles E. Anya whose telephone number is (571) 272-

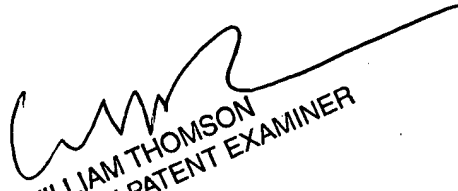3757. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Thomson can be reached on (571) 272-3718. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Charles E Anya
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Art Unit 2194

cea.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER